



SAFETY DATA SHEET
Rock Mineral Wool with ECOSE® Horticultural Products

SECTION 1: Identification: Product identifier and chemical identity

Product identifier

Product name Rock Mineral Wool with ECOSE® Horticultural Products
Product No. KI_DP_507
Synonyms; trade names Multigrow, HTC Slabs
Revision date 28-11-2016

Relevant identified uses of the substance or mixture and uses advised against

Application Rock Mineral Wool for use in horticultural industry. OEM HTC product.
Uses advised against None known.

Details of the supplier of the safety data sheet

Supplier Knauf Insulation Pty Ltd
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Region Australia

Emergency telephone number

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(Monday - Friday - 08:00 hrs - 17:00 hrs)
(Australian Eastern Standard Time - AEST (UTC+10))

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SECTION 2: Hazard(s) identification

Classification of the substance or mixture

| | |
|------------------------------|----------------|
| Physical hazards | Not Classified |
| Health hazards | Not Classified |
| Environmental hazards | Not Classified |

- Classification according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) 3rd Rev. Ed.

Classification according to GHS

The product is not classified.

Label elements

| | |
|---------------------------------------|-------------------|
| Hazard statements | NC Not Classified |
| Contains | None. |
| Hazard pictogram | None. |
| Signal word | None. |
| Precautionary statements | None. |
| Supplemental label information | None. |

Product handling precautions for encapsulated products

When cutting manually by a cutter, be careful so that dust does not scatter.

Make sure to place left over rock mineral wool into a bag, so dust does not become scattered. For disposal of industrial waste, please use a supplier which is authorised to handle these types of waste.

When storing the product please use some type of underlay, and also do not place heavy objects on top of the product.

When thinking about using the product for other applications, please consult first, by visiting our website www.knaufinsulation.com.au



Other hazards

| | |
|------------------------------|---|
| Physical Hazards | None. |
| Health Hazards | Mechanical irritation of the skin, eyes and upper respiratory system. |
| Environmental Hazards | None. |
| Main Symptoms | Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble rock mineral wool is generally considered to be a nuisance dust. |

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SECTION 3: Composition and information on ingredients

Mixtures

| | |
|--|----------------|
| Biosoluble rock mineral wool | 90-100% |
| CAS number: — | |
| Ingredient notes:(1) | |
| Classification | |
| Not Classified | |
| Thermo set, inert polymer bonding agent derived from plant starches | 0-10% |
| CAS number: — | |
| Classification | |
| Not Classified | |

The full text for all hazard statements is displayed in Section 16.

Ingredient notes

(1) Man made vitreous (silicate) fibres with random orientation with alkaline oxide and alkali earth oxide (Na₂O+K₂O+CaO+MgO+BaO) content greater than 18% by weight meeting the requirements of Note Q of regulation n° 1272/2008 and therefore not classified carcinogenicity.

Other information

Possible facing materials: None.

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SECTION 4: First aid measures

Description of first aid measures

| | |
|----------------------------|---|
| General information | Show this Safety Data Sheet to the medical professional in attendance. If symptoms occur, follow first aid measures as appropriate. |
| Notes to Physician | None specific |
| Inhalation | Remove from exposure. Rinse the throat and clear dust from airways. |
| Ingestion | Drink plenty of water if accidentally ingested. |
| Skin Contact | If mechanical irritation occurs, remove contaminated clothing and wash skin gently with cold water and soap. |
| Eye contact | Rinse abundantly with water for at least 15 minutes. |

Most important symptoms and effects, both acute and delayed

| | |
|----------------------------|---|
| General information | Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble rock mineral wool is generally considered to be a nuisance dust. |
|----------------------------|---|

Indication of any immediate medical attention and special treatment needed

| | |
|----------------------------|--|
| General information | If any adverse reaction or discomfort continues from any of the above exposures, seek professional medical advice. |
|----------------------------|--|

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media Water, foam, carbon dioxide (CO₂), and dry powder.

Unsuitable extinguishing media None specified.

Special hazards arising from the substance or mixture

General information Products do not pose a fire hazard in use; however, some packaging materials or facings may be combustible. Products of combustion from product and packaging - carbon dioxide, carbon monoxide and some trace gases such as ammonia, nitrogen oxides and volatile organic substances.

Advice for firefighters

General information In large fires in poorly ventilated areas involving packaging materials respiratory protection / breathing apparatus may be required.

Hazchem code Not applicable.

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SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Minimise direct contact with skin in order to prevent mechanical itching. In dusty environments, use suitable respiratory protection such as 3M 8210, N95 or equivalent. Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments. Where possible, use natural ventilation during installation in order to minimise dust levels.

After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching. Dispose of surplus product in accordance with local regulations.

Emergency procedures Use personal protection recommended in Section 8 of the SDS.

Environmental precautions

Environmental precautions Not relevant.

Methods and material for containment and cleaning up

Methods for cleaning up In dusty environments, use vacuum equipment where possible to minimise dust levels.

Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage, including how the chemical may be safely used

Precautions for safe handling

Usage precautions Assure proper respiratory protection if dust potential exceeds TWA/TLV.

Conditions for safe storage, including any incompatibilities

Storage precautions To ensure optimum product performance; when packaging is removed or opened; products should be stored inside or covered to protect them from ingress of rain water or snow. Storage arrangements should ensure stability of stacked products and use on a first in first out basis (FIFO) is recommended.

Specific end use(s)

Specific end use(s) Rock Mineral Wool for use in horticultural industry. OEM HTC product.

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SECTION 8: Exposure controls and personal protection

Control parameters

Occupational exposure limits

Exposure limits Consult local authorities for acceptable exposure limits.

Biosoluble rock mineral wool

Long-term exposure limit (8-hour TWA): NOHSC 2 mg/m³ Low Biopersistence Man-Made Vitreous (Silicate) Fibres, inhalable dust

Long-term exposure limit (8-hour TWA): ACGIH 15 mg/m³ respirable dust

Long-term exposure limit (8-hour TWA): ACGIH 1 f/mL total dust (Note (A3))

ACGIH = American Conference of Governmental Industrial Hygienists.

NOHSC = The National Occupational Health and Safety Commission.

Ingredient comments (A3) - Fibers longer than 5 µm; diameter less than 3 µm; aspect ratio greater than 5:1 as determined by the membrane filter method at 400-450X magnification (4-mm objective) phase contrast illumination.
Biosoluble Rock Mineral Wool - See section 3.

Exposure controls

Appropriate engineering controls Maintain sufficient mechanical or natural ventilation to assure fibre concentrations remain below TWA/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.

Eye/face protection Use glasses or goggles when working with mineral wool insulation above shoulder height or in dusty environments.

Other skin and body protection Minimise direct contact with skin in order to prevent mechanical itching.

Hygiene measures After contact with the product, rinse skin in cold water to reduce potential effects of mechanical itching.

Respiratory protection In dusty environments, use suitable respiratory protection.

Environmental exposure controls Not relevant.

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SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | |
|---|--|
| Appearance | Solid. Roll or panel. |
| Colour | Ochre. |
| Odour | Not relevant. |
| Odour threshold | No data available. |
| pH | Not relevant. |
| Melting point | Fibre melting point > 1000 °C according to DIN 4102-17. |
| Initial boiling point and range | Not relevant. |
| Flash point | Not relevant. |
| Evaporation rate | Not relevant. |
| Flammability (solid, gas) | Not relevant. |
| Flammability Limit - Lower(%) | Not relevant. |
| Vapour pressure | Not relevant. |
| Vapour density | Not relevant. |
| Relative density | 30 - 250 kg/m ³ |
| Solubility Value (g/100g H₂O 20°C) | Generally chemically inert and insoluble in water. |
| Auto-ignition temperature | Not relevant. |
| Decomposition Temperature | Not relevant. |
| Viscosity | Not relevant. |
| Explosive properties | Not relevant. |
| Oxidising properties | Not relevant. |
| Nominal diameter of fibres | 3 - 7 µm |
| Length weight geometric mean diameter less 2 standard errors | ≈ 6 µm |
| Orientation of fibres | Random |
| Biopersistence | Weighted clearance half-life of fibres, with length greater than 20 µm after inter-tracheal instillation, is less than 40 days (results obtained from a test conforming to the European protocol). |

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SECTION 10: Stability and reactivity

| | |
|---|---|
| Reactivity | None. |
| Stability | Binder will decompose above 200°C. |
| Possibility of hazardous reactions | None in normal conditions of use. |
| Conditions to avoid | Heating above 200 °C. |
| Materials to avoid | None known. |
| Hazardous decomposition products | None in normal conditions of use. Decomposition of binder above 200°C may produce carbon dioxide and some trace gases. The duration of release is dependant upon the thickness of the insulation, binder content and the temperature applied. |

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) No data were identified for the product as a whole. Data are for constituents:
 Biosoluble Rock Mineral Wool - Not applicable.
 Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Acute toxicity - dermal

Notes (dermal LD₅₀) No data were identified for the product as a whole. Data are for constituents:
 Biosoluble Rock Mineral Wool - Not applicable.
 Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) No data were identified for the product as a whole. Data are for constituents:
 Biosoluble Rock Mineral Wool - Not applicable.
 Thermo set, inert polymer bonding agent derived from plant starches. - Not applicable.

Skin corrosion/irritation

Skin corrosion/irritation May cause mechanical irritation to skin.

Serious eye damage/irritation

Serious eye damage/irritation May cause mechanical irritation to eyes.

Respiratory sensitisation

Respiratory sensitisation No data were identified for this product or its constituents.

Skin sensitisation

Skin sensitisation No data were identified for this product or its constituents.

Germ cell mutagenicity

Genotoxicity - in vitro No data were identified for this product or its constituents.

Genotoxicity - in vivo No data were identified for this product or its constituents.

Carcinogenicity

Carcinogenicity Results from a biopersistence test by intratracheal instillation has shown that fibres in this product longer than 20 µm have a weighted half-life less than 40 days, thus this product is not classified as a carcinogen. None of the components of this product are listed as a carcinogen.

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Reproductive toxicity

Reproductive toxicity - fertility No data were identified for this product or its constituents.

Reproductive toxicity - development No data were identified for this product or its constituents.

Specific target organ toxicity - single exposure

STOT - single exposure No data were identified for this product or its constituents.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No data were identified for this product or its constituents.

Aspiration hazard

Aspiration hazard Not relevant.

Inhalation Mechanical irritation to upper respiratory tract.

Ingestion Non-hazardous when ingested.

Skin Contact Mechanical irritation to skin.

Eye contact Mechanical irritation to eyes.

Medical Symptoms Contact with skin, eyes and upper respiratory system may cause mechanical irritation. Biosoluble rock mineral wool is generally considered to be a nuisance dust.

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SECTION 12: Ecological Information

Toxicity This product is not ecotoxic to air, water or soil, by composition.

Persistence and degradability

Persistence and degradability Inert inorganic product with Thermo set, inert polymer bonding agent derived from plant starches; 0 - 10%

Bioaccumulative potential

Bioaccumulative Potential Will not bioaccumulate.

Mobility in soil

Mobility Not considered mobile. Less than 1% leachable organic carbon if landfilled.

Results of PBT and vPvB assessment

Results of PBT and vPvB assessment Not relevant.

Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

Waste treatment methods

- Disposal should be in accordance with applicable regional, national and local laws and regulations.

Waste from residues Dispose of in accordance with all applicable regulations.

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Disposal methods May be disposed in landfill.

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SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

UN number

Not applicable.

UN proper shipping name

Not applicable.

Transport hazard class(es)

No transport warning sign required.

Packing group

Not applicable.

Environmental hazards**Environmentally hazardous substance/marine pollutant**

No.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

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SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations

International agreements:

Montreal Protocol (Ozone depleting substances): Not regulated.

The Stockholm Convention (Persistent Organic Pollutants): Not regulated.

The Rotterdam Convention (Prior Informed Consent): Not regulated.

Basel Convention (Hazardous Waste): Not regulated.

International Convention for the Prevention of Pollution from Ships (MARPOL): Not regulated.

Safety, Health and Environmental Regulations:

Australian Inventory of Chemical Substances (AICS): Listed.

In accordance with industry practice, Knauf Insulation has decided to continue to provide its customers with the appropriate information for the purpose of assuring safe handling and use of mineral wool throughout the product life.

SECTION 16: Any other relevant information

- Label in accordance with GHS: This product is not classified as hazardous.

Abbreviations and acronyms used in the safety data sheet

CAS: Chemical Abstracts Service.

EUCEB: European Certification Board for Mineral Wool Products.

GHS: Globally Harmonised System.

IARC: International Agency for Research on Cancer.

IATA: International Air Transport Association.

IMDG: International Maritime Dangerous Goods.

PBT: Persistent, Bioaccumulative and Toxic substance.

TLV: Threshold Limit Value.

TWA: Time Weighted Average.

vPvB: Very Persistent and Very Bioaccumulative.

General information

All products manufactured by Knauf Insulation are made of non-classified fibres and are certified by EUCEB. Products meeting EUCEB certification requirements can be recognised by the EUCEB logo printed on the packaging.

Further information can be obtained from

www.euceb.org

www.knaufinsulation.com

www.knaufinsulation.com/comfort-and-handling



Key literature references and sources for data

ChemAdvisor LOLI

Hazardous Substances Information System (HSIS)

European Chemicals Agency (ECHA) Dissemination Portal

European Certification Board for Mineral Wool Products (EUCEB)

Revision comments

New document format

Revision date

28/11/2016

Revision

2.0

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Supersedes date 8/09/2016

SDS No. 4771

Other information In 2001, the International Agency for Research on Cancer (IARC) reclassified rock mineral wool fibres from Group 2B (possibly carcinogenic) to Group 3 «agent which cannot be classified as for their carcinogenicity to humans». (See Monograph Vol 81, <http://monographs.iarc.fr/>)

This Safety Data Sheet / Product Data Sheet does not constitute a workplace assessment. Information contained in this document represents the state of our knowledge regarding this product as of the date of issue of the document. Attention of users is drawn to possible risks taken when the product is used for other applications than the ones it has been designed for.